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KNOWLEDGE

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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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ARMY STRONG.

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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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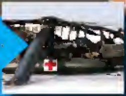

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A CHAN
IN THI

Safety is an intangible. We can't count it to determine how much we have or how much we need. We can't issue it to Soldiers to keep them safe. Yet every Leader in our Army is responsible for protecting Soldiers, as well as instilling in them a sense of personal responsibility for their safety. What a daunting task.

IGE
NKING

> "The GREATEST paradigm SHIFT occurred due to a CHANGE in THINKING – NOT in WHAT Soldiers THINK, but in HOW they THINK."

For the last two years, it has been my distinct honor and privilege to serve as the director of Army safety and commanding general of the U.S. Army Combat Readiness/Safety Center. In my time here, I have had the opportunity to see, and participate in, the ongoing transformation of Army safety from a reactive culture to a proactive and predictive culture.

Leaders and Soldiers have changed the Army's safety culture. The greatest paradigm shift occurred due to a change in thinking – not in what Soldiers think, but in how they think. You have taken the way we think about safety to the next level. So what have we, as an Army, accomplished to promote safety?

We have made great strides in reaching Soldiers by targeting influencers and making them part of the safety solution. We also targeted safety messages to specific demographic groups and developed user-friendly delivery methods for ease of use. Soldiers are Soldiers 24/7, and, beyond deployments, the bulk of their time is spent outside the oversight of Leaders. Keeping Soldiers safe while off duty is a challenge that requires out-of-the-box thinking and new approaches.

Understanding the influence of spouses and Family members, we expanded our safety team to include those who support the Soldier 24/7. No one knows the habits, thought processes and reactions of a Soldier better than his Family. With the Post-Deployment Family Engagement and BOSS Safety Factor kits, the Army enlisted the support of

ACCIDENT RISK ASSESSMENT FOR INDIVIDUALS
LEADER'S ACCIDENT RISK ASSESSMENT OF SUBORDINATES

Soldiers' loved ones. Both kits educate Soldiers and Families, make them aware of potential hazards and empower them to act as a positive safety influence in their Soldier's life.

Peer influence is another powerful tool. On a one-to-one basis, the "looking out" for a battle buddy has kept many a Soldier from harm, both on and off duty. Multiply this effort throughout the Army and you form a force truly comparable to a Band of Brothers. Young Soldiers might have difficulty recognizing risky behavior among their peers until they see the negative results firsthand. The injury or death of a brother in arms is not the way we want Soldiers to learn how to conduct themselves safely.

Army safety entered a new phase by harnessing the combined wisdom from every echelon across the Army and getting that knowledge from those who have it to those who need it. The Army Safety Net forum is one that will grow and prosper through your efforts. The sharing of Best Practices and lessons learned provides a repository of current, relevant safety information for its members to draw upon.

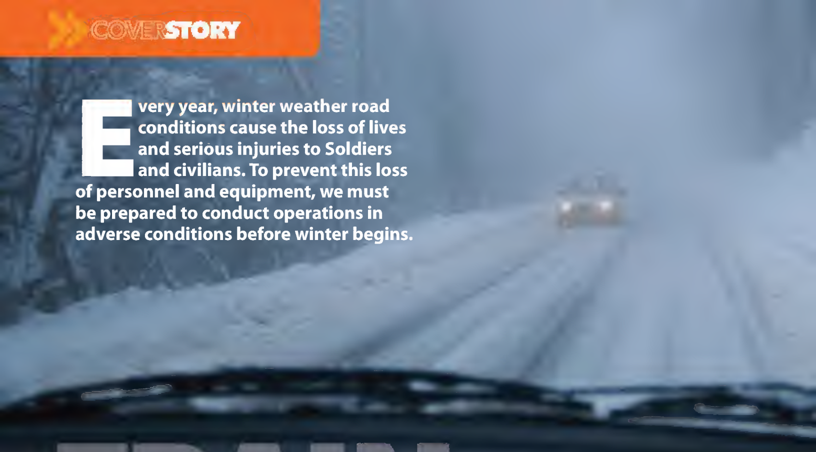
> "**ARMY SAFETY** entered a **NEW PHASE** by **HARNESSING THE** combined **WISDOM** from every echelon **ACROSS** the **ARMY.**"

Although I am leaving the Safety Center, I look forward to seeing the continued progress and evolution of Army safety. Credit for safety successes does not go to me or the people in this building. Although we strive to provide the best information and tools, the bottom line is that Soldiers keep Soldiers safe.

I wish all of you the best and **Army Safe is Army Strong!**

WH Forrester

William H. Forrester
Brigadier General, USA
Commanding



Every year, winter weather road conditions cause the loss of lives and serious injuries to Soldiers and civilians. To prevent this loss of personnel and equipment, we must be prepared to conduct operations in adverse conditions before winter begins.

TRAIN for the WEATHER

MICHAEL WOOD
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The Accident

An Army Motor Vehicle (AMV) was operating in snow and icy road conditions when the driver lost control and crossed into oncoming traffic. The AMV struck two vehicles, killing a civilian, injuring two Soldiers and destroying an Army vehicle.

What Happened?

A unit was tasked to refuel two AMVs and provide driver's training to a unit Soldier. To accomplish the mission, the Soldiers would travel on local roadways. They were given orders to clear the snow from their vehicles and conduct Preventive Maintenance Checks and Services (PMCS) and were briefed on the proper speeds for the winter road conditions.

The roads were clear, but a light snow started to fall as the operation began. The snowfall continued to increase and the roads became covered with snow. As the driver crested a hill, the instructor/assistant driver advised the Soldier to slow down. The inexperienced driver pressed the brake pedal and the vehicle lost traction. The rear of the AMV jackknifed into the oncoming traffic lane, struck the rear of a civilian vehicle and then collided with a second civilian vehicle. The civilian driver of the second vehicle was killed in the collision. The Soldiers were wearing seat belts and suffered only minor injuries; however, the AMV was destroyed.

How Could the Accident Have Been Prevented?

Before vehicle operations, Leaders must know the weather and road conditions for the

mission route and always use composite risk management in mission planning.

Other tips include:

- **Licensing and Training.** Ensure all drivers are trained and licensed and their licenses (OF 346) and driving records (DA 348) are properly annotated. Soldiers must have winter driver's training before operating a piece of equipment in winter weather conditions.
- **PMCS.** Train Soldiers to conduct proper PMCS on equipment they will operate. Ensure tire chains are packed on the vehicle and Soldiers know how to install them. After an accident, it is far too late to think about what you could have done to prevent it.
- **Braking.** Braking procedures are different for vehicles equipped with antilock brake systems (ABS). Check your -10 to see which type of brakes are on your vehicle. Also, ensure Soldiers understand how the system operates. Tips for braking vehicles with ABS and non-ABS are below.

–**ABS.** Do not pump the pedal. Rather, keep constant pressure on the pedal. You may experience a slight vibration, which is normal. Continue to hold the pedal down. Letting up on the pedal will deactivate the ABS and prevent it from working properly when you might need it most.

–**Non-ABS.** Keep your heel on the floor between the brake pedal and the accelerator. Use your toes to press the brake pedal until the vehicle's tires lock up, and then ease off the brake pedal until you reach the point where the tires are no longer locked up.

- **Skidding.** When your vehicle is involved in a skid, ease your foot off the accelerator or brake pedal, avoid slamming on the brake, downshift if you have a manual transmission, look and steer in the direction you want the vehicle to go and do not oversteer. Make necessary steering adjustments smoothly and gradually. If you overcorrect at first, be prepared for a skid in the

THE THREE P'S

Winter weather conditions can challenge the best drivers. Before hitting the road, make sure you know the three P's of safe winter driving.

PREPARE

- **Maintain your vehicle.** Check your battery and tire tread; keep your windows clean and clear of debris; put no-freeze fluid in the windshield washer reservoir; and check your antifreeze.
- **Make an emergency kit.** Stock your kit with a flashlight, jumper cables, abrasive material for traction (sand, kitty litter or even floor mats), shovel, snow brush and ice scraper, warning devices (such as flares and warning triangles) and blankets. For long trips, carry food, water, medication and a cell phone. If stranded, stay with the vehicle; place bright markers on the antenna or windows; and turn on the dome light. If you run your vehicle, make sure you clear the exhaust pipe. Run the vehicle just enough to stay warm.
- **Plan your route.** Allow plenty of time to reach your destination (check the weather and leave early if necessary); be familiar with the maps and directions; and let others know your route and arrival time.
- **Practice cold-weather driving.** During daylight, rehearse maneuvers slowly on the ice or snow in an empty parking lot. Steer into a skid. Know

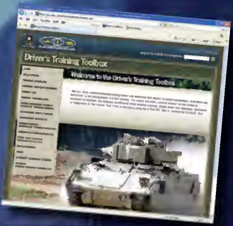
opposite direction. Again, remember to look and steer where you want the vehicle to go. Continue to steer until your vehicle recovers from the skid. Once the vehicle is under control, adjust your speed to the road conditions.

Road conditions are also an important factor when driving in winter weather. One of the most dangerous conditions is black ice, which occurs when ice forms on an asphalt surface. The conditions are right for black ice if you have to scrape frost or ice from your vehicle's windshield. If you find yourself on a patch of black ice, don't panic. Take your foot off the gas pedal and steer gently in the direction you want the vehicle to go. Don't slam on the brakes, which will only make the situation worse, and don't make quick turning maneuvers.

Certain areas of roadways – such as bridges, overpasses and underpasses – can also present challenges. Adjust your speed for bridges and overpasses, which freeze before other road surfaces because of the airflow both over and under the structure. Learn how to recognize the hazard. A good rule is to slow down when approaching bridges and places where the road is in the shade, especially late in the afternoon and after dark, when temperatures are lower.

The most important measure drivers can take is to drive defensively. Pay attention to the actions of other drivers; anticipate what they could do wrong and plan what actions you might need to take to avoid involvement. The most common mistakes drivers make in bad weather are driving too fast for conditions and underestimating stopping distances. The best advice for driving during winter is to slow down and concentrate on safe, cautious driving.

When you're planning your daily trips or convoys this winter, be sure to train and document the training on the driver's record and license. The U.S. Army Combat Readiness/Safety Center's (USACRC) Driver's Training Toolbox has a series of winter driving presentations which can assist you in conducting training. It can be found on the USACRC Web site at https://crc.army.mil/drivertrainingtoolbox.«


Driver's Training Toolbox
Welcome to the Driver's Training Toolbox

CHIEF WARRANT OFFICER 5 ROBERT REYNOLDS
Third Army/U.S. Army Central Command
Fort McPherson, Ga.

what your brakes will do. Press firmly on antilock brakes and pump non-antilock brakes. Remember, stopping distances are longer on water- and ice-covered roads. Also, don't idle the vehicle for a long time with the windows up or in an enclosed space.

PROTECT

- Buckle up and use child safety seats properly.
- Never place a rear-facing infant seat in front of an airbag.
- Keep children 12 and under in the back seat, where it is much safer.
- Sit back at least 10 inches from an airbag.

PREVENT

- Never mix drugs and alcohol with driving.
- Slow down and increase your following distances.
- Keep your eyes open for pedestrians walking in the road.
- Avoid fatigue – get plenty of rest before the trip, stop at least every three hours and rotate drivers whenever possible.

Don't let winter weather turn you into a driving statistic. Follow the three P's of safe winter driving so you can safely make it to your destination.«

GRAVEL Bites

WARRANT OFFICER 1 ROGER KOSS
3rd Armored Cavalry Regiment,
66th Military Intelligence Company
Fort Hood, Texas

Whether it's a convoy operation or a trip to another city with your Family, it's always a good idea to do a map or route recon. You'll have the advantage of locating rest stops, places to fill up or, just maybe, some possible road hazards. But I didn't do that during a winter ride from my home in Colorado Springs to Woodland Park, and it literally proved to be my downfall.

I opened my garage and rolled my bike out into a beautiful winter day, the snow around me capped by a dazzling blue sky. I looked over my bike, making sure I checked my lights, tire pressure and fuel just as I had been taught in my Motorcycle Safety Foundation (MSF) training. I put on all the required personal protective equipment (PPE), to include a full-face helmet and a thick canvas riding jacket, and headed on my way.

My route would take me through Colorado Springs on Powers Boulevard and then onto Highway 24. There, I would exit and drive through the city of Manitou Springs before getting back onto Highway 24, headed toward Woodland Park.

The ride through Colorado Springs was uneventful until I reached the onramp for Highway 24. As in many other cities that experience heavy snow, crews spread a mixture of rock salt and gravel to help improve road conditions. When the ice and snow melts, the city sends out street sweepers to push the remaining gravel to the side of the road. Sometimes, they don't quite get it all.

I started onto the onramp for Highway 24. The onramp included a series of curves that went first to the right, then to the left and back to the right before merging onto the highway. I maneuvered into the curves the way I was taught in my MSF training – entering the first curve on the outside (away from the curve and near the line dividing the lanes) then cutting inside on the right curve and outside on the left curve as I prepared to merge onto the highway. Unfortunately, it didn't quite work out as planned.

As I leaned into the final curve, I noticed some gravel directly in my path. I tried to straighten up the bike and ride through it, but I didn't have enough time. The rear tire suddenly slid out from

under me, sending my bike and me sliding down the pavement. However, instead of being on top of the bike, I was on the bottom, "cushioning" the bike's slide with my body! As I slid, I stuck out my right arm to keep my helmet from hitting the pavement.

I was fortunate not to suffer any serious injuries. My "battle scars" amounted to a section of road rash about the size of a quarter on my right elbow, along with some minor road rash on my right leg. And, although sticking out my right arm had saved my helmet from hitting the road, I had a very sore shoulder. Still, things could have been a lot worse and I was grateful that I was wearing my PPE that day.

Looking back, while I did a lot of things right that day, I made an assumption that later failed. Because the roads were typically cleared of gravel, I let down my guard. I didn't completely plan for all of the potential hazards in my environment. I assumed the roads would be cleared of gravel because they normally were. In my case, a map recon, at a minimum, would have helped me identify my potential hazards and improved my situational awareness. The good news is that although my bike and I took a good beating, I walked away from this one with a lesson learned. Thanks to my PPE, I am still able to go out and enjoy the road.

Take a few minutes to learn from my mistake. Plan for the hazards in your route before you hit the road. In the process, leave yourself a little extra margin for life's "little" surprises. When your hide suddenly becomes your bike's "traction patch" on the road, I can tell you from experience – "gravel bites!"«

> “**PLAN** for the **HAZARDS** in your **ROUTE** before you **HIT** the **ROAD.**”

FIRE AND COMP

AN EVER-PRESENT THREAT TO ARMY AVIATI

Fire is a threat we must consider in many aspects of our lives; however, in aviation operations, the possibility of a fire can be intensified by the quantity and the close proximity of fuel onboard the aircraft, the materials the aircraft components are made of and the limited ways we have to egress the aircraft. Couple these intensifiers with flying, and aviation becomes exponentially more dangerous.

Let's examine a scenario involving fire in a MEDEVAC UH-60A. Fortunately for the aircrew involved, this accident happened on the ground before they took off for their training mission and injuries were minimal. We'll also look at what led to the accident, what happened, what should have happened and what we can learn from the experience.

It was a perfect day for a training flight. The aircraft and crew were "first-up" for their military assistance to safety and traffic (MAST) mission and were approved for a routine night vision goggle crew proficiency/collective

PLACENCY

ON

COMPILED BY THE KNOWLEDGE STAFF
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

training flight during their 24-hour standby period. For the MAST mission, each aircraft was configured with the crashworthy external fuel system. The weather was agreeable, the preflight looked good and the crew mix seemed right for the mission. The pilot in command (PC) had more than 2,000 hours of flight time and over 800 hours in the UH-60A. The pilot (PI) had about 240 hours of flight time and more than 150 hours in the UH-60A. Both the crew chief (CE) and flight medic (MO) were senior in their experience with the aircraft and unit mission.

What Happened?

It was a typical day; the crew showed up at the hangar to assume their first-up duties according to the company standing operating procedures. The CE preflighted the aircraft and found no discrepancies. Later in the evening, the crew received the weather briefing, and the PI conducted a preflight of the aircraft and also noted no discrepancies. Both the CE and PI visually verified during their preflight that there were no leaks or evidence of fluids anywhere on the aircraft.

The crew performed

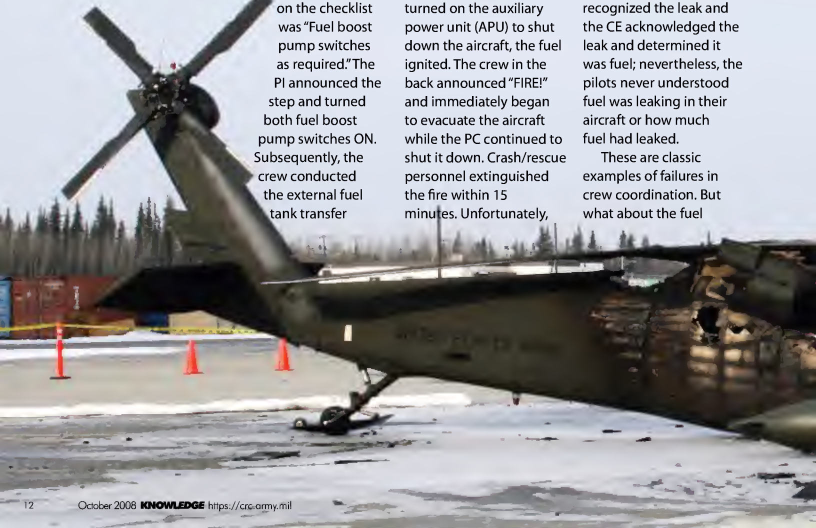
a crew brief and pushed the aircraft out of the hangar for run-up. During run-up, the PC was on the controls and the PI was on the checklist. Since this was the first flight of the day for this aircraft, the pilot started the engines with the fuel system selectors in the CROSSFEED position, as required by the checklist. With the fuel control levers in CROSSFEED, the PI started the No. 1 engine without issue and then started the No. 2 engine. With both engines at idle, and approximately one minute after engine start, the PC noticed the No. 2 fuel pressure caution warning panel light had illuminated. She turned the No. 1 fuel boost pump switch ON, which extinguished the No. 2 fuel pressure caution warning light. Without any mention to the crew regarding the No. 2 fuel pressure caution warning panel light, the PI continued with the checklist and the PC continued to hold the controls and monitor the instruments. At the conclusion of the run-up, the crew placed the fuel system selectors in the DIRECT position and proceeded with the health indicator test (HIT) without incident.

Following the HIT check, the next step on the checklist was "Fuel boost pump switches as required." The PI announced the step and turned both fuel boost pump switches ON. Subsequently, the crew conducted the external fuel tank transfer check, and the MO in the back left gunner's seat identified a high volume of fluid running out of the cabin ceiling gust lock access cover and onto his medical gear. The MO notified the CE directly, who verified the leak as fuel and announced the fuel leak to the pilots. The pilots immediately acknowledged the announcement of a leak; however, they never understood that it was a fuel leak or the large quantity of fuel that was leaking. Without any clarification as to the amount or type of leak, the PC elected to do a normal shutdown of the aircraft. When the PC turned on the auxiliary power unit (APU) to shut down the aircraft, the fuel ignited. The crew in the back announced "FIRE!" and immediately began to evacuate the aircraft while the PC continued to shut it down. Crash/rescue personnel extinguished the fire within 15 minutes. Unfortunately, 15 minutes of fire destroyed the UH-60A.

What Went Wrong?

Let's start from the beginning. When the No. 2 fuel pressure caution light illuminated, the PC failed to announce the presence of this caution light to the crew and further failed to announce her actions when she turned on the No. 1 fuel boost pump. Later, during the run-up sequence, the PI turned on both boost pumps without announcing his actions. Additionally, when the nonrated crewmembers in the back discovered the leak, the pilots didn't understand the emergency. The MO recognized the leak and the CE acknowledged the leak and determined it was fuel; nevertheless, the pilots never understood fuel was leaking in their aircraft or how much fuel had leaked.

These are classic examples of failures in crew coordination. But what about the fuel



"**REINFORCEMENT** of proper aircrew coordination techniques and the development of sound **DECISION-MAKING, RISK ASSESSMENT** and **JUDGMENT SKILLS** can help defeat complacency."

boost pumps? Should aviators turn them on or off? First, let's look at the requirements for flying with the fuel boost pumps in the ON position, according to the operator's manual:

(1) When using JP-4 or equivalent and flying at or above 5,000 feet mean sea level (MSL)

(2) As required during an emergency procedure

(3) When operating in crossfeed at any altitude and using JP-4

(4) During external extended range fuel system operations (engine bleed air only) and regardless of fuel type.

In this scenario, the mission had not required them to turn on the fuel boost pumps. Yes, they were using JP-4, but they were not above 5,000 feet MSL. The PC normally operated with the fuel boost pump switches in the OFF position unless she knew she was going to fly above 5,000 feet MSL. Conversely, the PI had been trained by unit instructor pilots to turn the fuel boost pump switches on at this point in the checklist due to using JP-4 and because the surrounding mountainous environment typically exceeds 5,000 feet MSL.

Lessons Learned

Recognition of complacency and proper crew coordination as it relates to fuel boost pump operation and cockpit communication could have prevented this fire. An estimated 4 gallons of fuel would not have been pumped onto the deck of the aircraft had the boost pumps not been turned on. Instead, because the UH-60A has a negative fuel pressure system, any fuel system integrity issues would have caused the engine to flame out. The error in crew coordination is typical when a pilot becomes overconfident in his ability to manage the cockpit and handle emergency procedures. The situation sometimes exacerbates the problem when we put less experienced PIs with more experienced PCs, resulting in the PI becoming overconfident in the PC's ability to execute the duties as the PC of the aircraft.

Complacency is difficult; however, as supervisors, PCs of aircraft and/or supervisors of maintenance operations, we have to be constantly on the lookout for crewmembers that show complacency and poor crew coordination techniques. How can aircrew members avoid overconfidence and complacency? The first thing we have to do is recognize the problem. Overcoming complacency and implementing a change is never easy. Reinforcement of proper aircrew coordination techniques and the development of sound decision-making, risk assessment and judgment skills can help defeat complacency.«

iF it ain't b

CHIEF WARRANT OFFICER 4 DAVID MUEHLEISEN
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

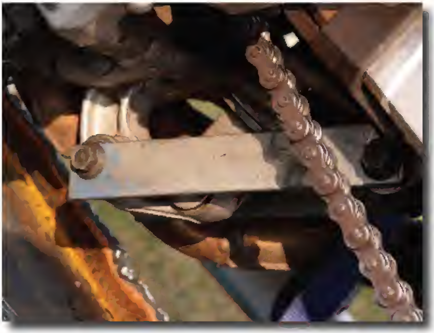
Editor's note: Ever notice how some people can't resist tinkering with something until they break it? In the pursuit of "cool," some riders take a perfectly good motorcycle and mess with it until it's thoroughly FUBAR. Gone are the precision handling and performance characteristics the engineers designed into the bike. What remains is a "Franken-cycle" — a collection of mismatched parts that, like the monster of old, can't quite do anything right. That is, except, maybe kill people.

I hadn't ridden since 1997, but I was getting the "itch" to ride again. I kept checking out the "Lemon Lot" on post, looking for something that would catch my eye and fit my wallet. Persistence paid off when my wife and I went by one day and I spotted a yellow and black Honda CBR 600 F4 at a fair price. I told her that was what I wanted. So I pulled out my cell phone and tried to call the owner, but no one answered. What a bummer! A few days later, I came home early to get ready for school that night. When I opened the garage door, there the bike was, sitting with the keys in the ignition. My wife had bought it for me as a surprise present. I was thrilled!

I hopped on the bike and just cruised around the neighborhood a few times. I noticed the bike sat really low – so low, in fact, that my toes would drag when I took slow, tight turns. I also noticed the torque seemed really excessive on the low end of the throttle.

I found out the previous owner, a young guy I had never met, had modified the bike to make it look cool and produce more low-end torque. For example, he'd lowered the front forks about 2 inches. This almost eliminated the gap between the front fender and the headlight fairing and shortened the fork travel to where I felt they'd bottom out under normal riding conditions. There was no question I needed to return the bike's front forks to their stock condition.

The rear shock was the really scary part. The previous owner had replaced the original dog bones with fabricated steel slats that he drilled and bolted into place. The replacement dog bones were about 2 inches shorter and one-sixteenth of an inch thinner than stock ones. I took off these "replacement" dog bones and looked at them. I noticed they were bending at the middle hole and the metal was stretching and slightly bent. To me, it looked like they were in the process of



⮝ The picture above shows a "shade-tree" lowering modification for a rear shock on a sportbike.

ROKE...

failing. I can just imagine the catastrophic failure that would have happened if that weak metal snapped at 65 mph!

It wasn't just the suspension the former owner had altered. He'd also changed the sprockets to make the bike look cool and produce more low-end torque. That's why the throttle response didn't seem to feel right when I rode the bike.

Those changes completely altered the bike's stock handling and performance. I read some blogs and spoke to some experienced riders about the changes. They told me lowering the bike's suspension changed its handling characteristics and if you didn't know what you're doing, you could be in for a big surprise the next time you went into a corner. The stock CBR 600 looked cool enough to me – I didn't need these dangerous alterations. I decided to return the bike back to its original configuration. So back inside the garage the bike went.

Restoring the bike to the original configuration was, for the most part, an easy task. I returned the front forks back to their stock condition and torqued them down to factory specs. I replaced the rear shock dog bones and sprockets with original equipment manufacturer (OEM) parts. Going back to the OEM sprockets made the speedometer read accurately again. It also corrected the excessive low-speed torque and the over-revving at highway speed. When I put the suspension back to stock, I realized the kickstand was 2 inches too short, so I ordered a used one and replaced that, as well. While I had the bike torn down, I replaced all the brake pads for good measure. Now the bike was ready to ride just like Honda intended.

Since returning the bike to its stock configuration, I can tell a big difference in every aspect of riding. Compared to the way it cornered before, it now turns less aggressively. When I take off, the transition when shifting from gear to gear is smoother and much less punishing on the chain and sprockets. Even when parking on the kickstand, the bike now sits properly. The bottom line is I know the bike is configured exactly the way it was engineered to be. I don't have to worry about parts snapping and falling off or dragging my toes in the corners. And that makes me feel a lot more confident – and safe – as a rider.«

Playing with

Due to the winter chill, Soldiers will remain indoors much more than when the weather is sunny and pleasant. In some cases, this means many appliances and electronic devices will remain plugged in and running for long periods of time. This greatly increases the risk of an accidental fire.

Electrical hazards are the most common fire risk Soldiers face and can result from the improper use of extension cords, appliances, "daisy-chained" power strips, overloaded outlets and light fixtures. To help reduce electrical fire hazards, inspect the rubber or plastic insulation wrapped around extension cords. If this protective wrap is cracked, frayed or in any way damaged, replace it immediately.

Keep in mind that extension cords are intended for temporary use only and should be unplugged after every use. Never consider an extension cord as part of an appliance's factory-supplied power cord. Also, look at the male and female ends of the cord. Stamped on one or both ends should be the Underwriters Laboratories (UL) symbol, which is considered the "safety seal of approval." Electronic goods without this stamp or sticker should not be trusted.

Another common mistake that creates a fire hazard is "daisy chaining" power strips (plugging one power strip into another).

FIRE

1ST LT. ERIK JOHNSON
Michigan Army National Guard
Lansing, Mich.

This is often done in a misguided attempt to operate multiple appliances off one outlet. This technique causes a reduction in the amperes flowing into dependent appliances, which could result in overheating and lead to a fire. One outlet is manufactured to supply power to one power strip. Operating two or more power strips off a single outlet creates an unacceptable hazard.

Light fixtures such as lamps and track lighting can also create a fire hazard. Lights should never be placed where they touch curtains or drapes. In addition, never cover the top of a lampshade, as heat from the bulb must be allowed to escape. If the heat cannot escape, it can intensify and perhaps cause a fire. It's also a good idea to keep appliances clean. Remember to never cover an appliance's ventilation ducts, as lack of ventilation causes heat and, as we all know, heat can cause fire.

Although electrical hazards may dominate this list, they're not the only threat. As for smoking hazards, do not empty ashtrays or cans into the trash without first dousing the hot ashes with water. More importantly, remember to never smoke within 50 feet of any fuel point or fuel tanker truck. Also remember that candles and gas grills are fire hazards. Barbeques and burn barrels must be kept a safe distance from all buildings and decking, and a fire should never be left unattended.

One last word on housekeeping practices: do not cover emergency light fixtures with clothes, linens or anything. Also, never block exits with furniture and do not obstruct access to breaker boxes either inside or outside of billeting structures. If you have any questions or concerns about fire safety, direct them to your safety officer or the fire department. And remember, fire hazards have countermeasures. Employ them! «

HOT-WI
FOR

The mission began as a routine night vision goggle (NVG) aerial refueling proficiency mission. The MH-47 crew of six preflighted, briefed and filed their crew packet and flight plan with operations. The aircraft was ready, as was the crew.

In accordance with standing operating procedures, the crew chief carried an aircraft mechanics toolbox with the necessary tools for repair and maintenance of the MH-47. The toolbox was stored securely on the floor in front of the 800-gallon Robertson auxiliary fuel tank in the forward cabin area. In the toolbox were two 14.4-volt DC batteries and a drill driver used for removing panel screws. The toolbox had foam inserts, neatly cut out to account for and secure the tools and the two batteries. With the exception of the odds and ends that crew chiefs carry to complete those minor unscheduled maintenance tasks, the toolbox also included assorted common cotter pins, nuts, washers and a spool of .020-inch safety wire.

The crew departed shortly after the end of evening nautical twilight and had about 45 minutes of en route time before the air refueling control time (ARCT). The ARCT is a "hard" time where the receiver, in this case the MH-47, and the tanker, an MC-130, must join up for the aerial refueling.

About 20 minutes into the flight, while still low level, one of the pilots reported smelling smoke. After a short discussion, the pilots realized the aircraft was flying over an area that was conducting a controlled forestry burn. However, the smell increased in intensity and the crew began looking for the source of the smoke. The pilots immediately turned back to base.

The crew chief in the forward cabin area followed the odor to the vicinity of the toolbox. When he raised the lid of the toolbox, the tray holding the spool of .020-inch safety wire was glowing red and producing fumes and light smoke. The red glow when viewed through NVGs amplified the scene and he reported "FIRE!" on the internal communication system (ICS). The cry of "FIRE" on the ICS ranks right up there with "WIRES!" on a pilot's least favorite things to hear.

Immediately following the cardiac episode, the pilots began a descent

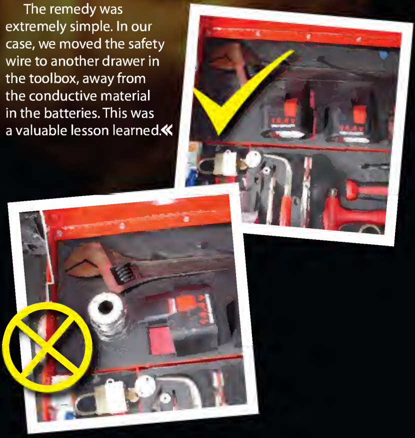
RED DISASTER

CHIEF WARRANT OFFICER 4 GREG DODSON
HHC 3-160th Special Operations Aviation Regiment (Airborne)
Hunter Army Airfield, Ga.

and prepared for an emergency landing. What the crew chief had seen was a spool of .020-inch safety wire resting against the terminals of one of the 14.4-volt DC batteries for the drill driver. The spool was smoking, glowing red and melting the plastic surrounding the terminals on the battery. The crewmember calmly reported the clarified version of what he saw to the rest of the crew and the pilot aborted the landing and turned the aircraft back to base. The crew chief then carefully pushed the safety wire away from the battery, but it came to rest on the other battery and began to glow and smoke exactly like the first. With one more attempt, he was able to separate the safety wire from the battery and remove the source of smoke and fumes. After a hectic minute or two, the crew was able to relax and again changed course to resume the route back to the tanker for their aerial refueling mission.

This crew was lucky they found the fire source in time. The hazard of storing a spool of safety wire in close proximity to the drill driver battery could have resulted in a fire and/or explosion. The 800 gallons of JP-8 conveniently placed within a foot of the toolbox presented a ready fuel source. This could have easily resulted in a destroyed aircraft and possible fatalities.

The remedy was extremely simple. In our case, we moved the safety wire to another drawer in the toolbox, away from the conductive material in the batteries. This was a valuable lesson learned.«



LOOKING AH
FISCA

BILL ZAHARIS
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

HEAD:
AL 2009 OBJECTIVES

On June 16, 2008, the Secretary of the Army and Chief of Staff, Army, approved the Army Safety and Occupational Health Objectives for fiscal 2009. The guidance was distributed to all Army Headquarters commanders for dissemination and development of subordinate plans to meet four basic objectives, which are presented below.

Safety Climate and Culture

Evaluate your programs to ensure you are addressing the climate of your organization in both depth and breadth. How well are you communicating your message and how far down in the organization does it go? Our goal is to change the safety culture of the Army to be proactive and predictive. Use the tools available to you such as the Army Readiness Assessment Program or Individual and Leader Accident Risk Assessments to assess climate and culture and develop plans to target those areas where you have gaps.

Off-Duty Loss Reduction

Our goal for fiscal 2009 is to reduce off-duty accidental loss from fiscal 2008 by 20 percent. Each command is unique, but the basic premise of reducing off-duty loss applies to all Soldiers, civilians, Family members and contractors. Each member of our team is important. While most off-duty reserve component, Department of the Army civilian and contractor losses aren't counted in our statistics, they're felt in our formations and workspaces. We owe it to all the men and women professionally affiliated with our Army to provide the tools and advice they need to make wise risk decisions. Take a holistic look at your environment and seek out ways to engage those who can influence our team members while away from their place of duty. Every post, camp and station is a hometown with adjacent communities full of untapped resources. Evaluate which local organizations or businesses may be able to influence our Soldiers and engage those who are willing to help.

Sustainment

For fiscal 2009, our on-duty goal is to sustain the more than 40-percent reduction from fiscal 2006 numbers while shifting focus to off-duty reductions. While striving to achieve the off-duty

goal, it is imperative we sustain our gains in reducing on-duty accidental loss over the last two years. During fiscal 2008, we asked you to target your programs at your command's greatest loss areas. Continue to support those on-duty programs that have produced success and continue to foster the composite risk management mindset in all you do.

Best Practices

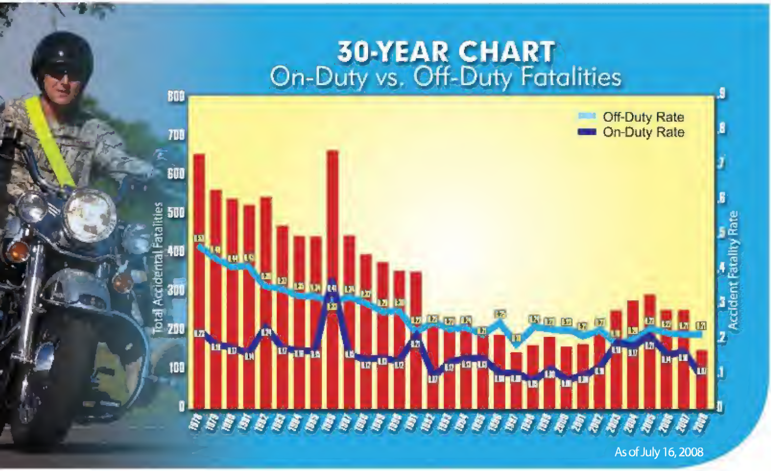
As our safety culture continues to grow and improve, many of your organizations have reported some new and innovative ideas that are proving to save lives. We can learn a tremendous amount from each other by sharing our successful programs. Last year, we asked you to capture Best Practices in your commands and to be prepared to report by the end of the fiscal year. This year, we ask you to publish those Best Practices you have identified through various command and safety channels. The U.S. Army Combat Readiness/Safety Center will assist you in capturing and publishing those great programs across the Army.

For the past few months, staff officers at all echelons have been building plans unique to their organizations to meet the goals set by our senior Leaders. Now is the time to begin executing those plans and looking ahead to a year where we make significant headway in reducing our losses to accidents. Some of you may wonder why the shift in focus to off-duty accident prevention when what we do in the Army is significantly more dangerous than what we do in our off time. The truth is we are much safer on duty than off duty.

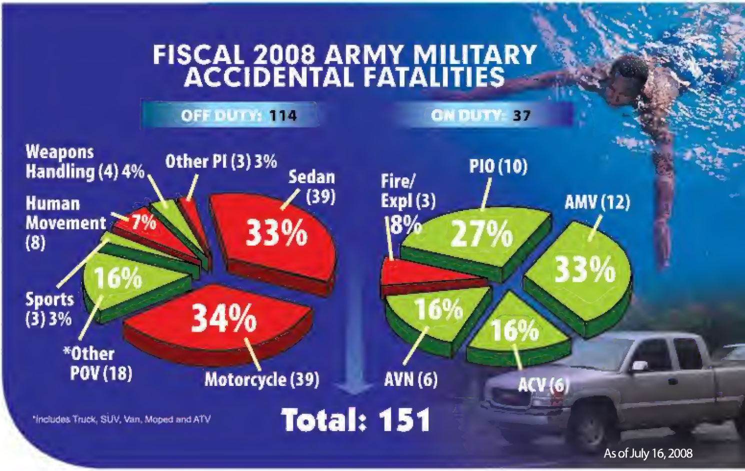
The chart below depicts our on- and off-duty Soldier fatality numbers and corresponding rates per 1,000 Soldiers. You can see that for the last 15 years, the off-duty fatality numbers and rate has remained relatively flat. During the same period, we've had great success in forcing the number of on-duty fatalities down both pre-9/11 and again following a spike during the beginning of the Global War on Terrorism.

When we just look at fiscal 2008 numbers as of July 16, with nine and a half months behind us, you can see that 75 percent of our accidental fatalities occurred off duty, as depicted in the chart to the right. (The chart compares Army fatalities for fiscal 2008 to the same time period last year. If a slice of the pie is green, we have fewer fatalities in that category than in the previous year.)

Of the 114 Soldiers lost, 84 percent (96) were related to driving a privately owned vehicle (POV) or motorcycle. Most of these accidents did not occur because of a lack of training, road conditions or the fault of another motorist. They happened because of indiscipline – whether it's not wearing a seat belt, failing to



As of July 16, 2008



wear a helmet on a motorcycle or just going too darn fast with either.

At the same time, as of July 16, we had exceeded our total motorcycle fatalities for all of last year with more than two months of prime riding season left in the fiscal year. Of the 39 motorcycle fatalities, 27 involved known acts of indiscipline. All the reports aren't in yet, but we expect many of the remaining 12 will include indiscipline, as well.

You can make a difference. The Army has been successful in lowering the number of on-duty fatal accidents through strong, caring leadership. We can do the same with off-duty loss if everyone gets engaged. It doesn't matter whether you are a Soldier, civilian, Family member or contractor; all play an important role in the ability of our Army to accomplish the mission. Any loss hurts the team and requires others who are already fully committed to take on more.

So what can you do? Read over the objectives again. Think about different ways you or your organization might be able to influence a member of the team who is taking unnecessary risks. Who in your sphere of influence could be considered high risk? Have you looked hard and given it more than just a cursory thought? Do you have access to on- and off-post traffic violations? Who can help you get access? Have you engaged them?

Can you be the first to tap into a local resource that no one else has thought of or just didn't think would work such as Family Readiness Groups, Better Opportunities for Single Soldiers (BOSS), local law enforcement, car or motorcycle dealers, veterans groups, clubs or social networking Web sites? If you have found something, have you shared it with others who could benefit and maybe use the same approach? Send an e-mail, blog or text message. Write an article for your unit newsletter, post paper, magazine, etc. If you don't like to write, talk with someone who does and let them capture what it is you think will make a difference.

For 15 years, we've been unable to make a significant positive change in reducing off-duty fatalities. Everyone knows that "hope is not a method." Yet, expecting different results while using the same methods, tools or procedures you used in the past amounts to relying on nothing more than hope or, worse yet, plain old luck. It's going to take fresh, innovative ideas and strong leadership to break the pattern and change off-duty behavior.

Changing behavior and reducing human error accidents is hard work. We begin the fiscal year with a clean slate, so what we write as history at the end of fiscal 2009 is up to you. Our senior Leaders know you can make a difference in curbing off-duty risky behavior and have given you the direction to move out. Good luck! No, correction. Luck has nothing to do with it.«

REST FOR TH

WEARY

CADET CHARITY MASAITIS
U.S. Military Academy
West Point, N.Y.

Fatigue is a common stressor that challenges Soldiers at all levels. Both Leaders and Soldiers must be aware of the effects of fatigue on their bodies. Failure to prevent it could result in Soldiers making mistakes that have disastrous consequences.

Fatigue is the state of feeling tired, weary or sleepy that results from extended periods of mental or physical work, prolonged periods of anxiety, exposure to harsh environments or loss of sleep. Work-related factors such as long hours on the job, strenuous physical or mental activity, shift work, inadequate rest between work periods, excessive stress or a combination of these can contribute to fatigue. Unfortunately, all these factors are common in our military.

With a number of Soldiers experiencing multiple deployments, as well as extended deployment lengths, many in our Army experience the effects of fatigue. Fatigue affects the body in many negative ways. When individuals are fatigued, they tend not to think as clearly and, therefore, have slower reaction times. This can pose a dangerous situation because Soldiers must be alert and aware of their surroundings to make good, quick decisions. Prolonged periods of fatigue can also cause various health problems such as obesity, diabetes, heart problems, depression, loss of concentration, slower reaction times and an inability to remember things.

While assigned to the U.S. Army Combat Readiness/Safety Center at Fort Rucker, Ala., for a summer internship, I had the opportunity to participate in a three-day fatigue study at the U.S. Army Aeromedical Research Laboratory. On the first day, another participant and I in-processed and then went home to sleep to prepare for the next two days. The following morning, we returned to the lab for the period of sleep deprivation. About every four hours during this period, our cognitive processing and reaction times were tested using the EST 2000 (an indoor shooting range) and short computer games.

By the end of the two days of sleep loss, the effects of fatigue were evident in both of us. I felt extremely tired, and it was hard to think clearly and normally. I had a difficult time doing the simplest tasks and my body's reaction time had slowed. It took me longer to react during the computer game tests than at the beginning of the study, and I made many more mistakes. Seeing the effects fatigue had on my own body helped me realize it can play a major role in decision-making and lead to errors and, possibly, a preventable accident.

There are several ways a person can prevent the effects of fatigue, such as improving sleep habits. According to the National Sleep Foundation, the best way for a person to improve sleep habits is to establish a consistent sleep and wake schedule, even on weekends. It's important for Soldiers to keep their sleep patterns consistent each night. Creating this routine prepares the body

FYI

Sleep deprivation may lead to drivers falling asleep at the wheel, failing to recognize a threat or reacting too slowly; impaired thinking and reasoning abilities, leading to bad decisions; and an overall degradation in alertness and ability to function properly. The following tips can aid with sleep management:

- **Maintain a nutritious diet and try to avoid too much caffeine, sugar and tobacco.**
- **Do not eat or drink too much before bedtime.**
- **Exercise regularly – but not within three hours before bedtime.**
- **Avoid activities that are mentally or physically stimulating before sleeping.**
- **Avoid over-the-counter "sleep aids," which can cause grogginess, not actual sleep.**
- **When sleeping, minimize noise and light by wearing earplugs and blackout shades.**
- **Maintain a disciplined work/rest cycle.**

for sleep, and keeping this routine consistent can help maintain the body's circadian rhythms.

Finding the time to sleep while deployed is one of the greatest challenges Soldiers and Leaders face. It can be difficult for a Leader to fit a suitable rest plan into current operations, so Soldiers might not have the luxury of eight hours of sleep. The stress of the day might also cause some Soldiers to have a hard time sleeping even if they do have adequate time for rest. There are things Soldiers can do to encourage sleep such as exercising every day. However, they should try to avoid exercising three hours before bedtime. Soldiers should also try to refrain from eating at least two to three hours before bedtime. If nothing else, Soldiers should avoid caffeinated or alcoholic beverages, as well as tobacco products, before going to bed.

Soldiers are under extremely high levels of stress, and fatigue is a major factor that continues to plague them whether deployed or at home. Therefore, Leaders need to ensure their Soldiers are having their basic needs met in order for them to perform to the best of their abilities. By teaching Soldiers the effects fatigue has on their bodies and how to recognize the symptoms, Leaders might help prevent a needless accident.«

G SOLDIER MENTAL READINESS

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U.S. Army Aeromedical Research Laboratory
Fort Rucker, Ala.

You don't need a scientist to tell you that fatigue has detrimental effects on a Soldier's physical and mental performance. The Army is a tough profession with a high operational tempo that sometimes dictates the amount of rest Soldiers get, especially in wartime conditions.

As more advanced and complex technology reaches the battlefield, warfighting requires not only peak physical performance, but also greater levels of mental performance. There are times when everyone is tired, yet Leaders must make candid decisions to assign Soldiers to specific tasks or missions.

So, under such difficult conditions, how do Leaders select the most mentally able Soldier to accomplish a specific mission? Would it be the Soldier having the best training, the most experience, the highest academic background or the least recent activity? You might think these important factors would be the best predictors of mental performance; however, a recent study by the U.S. Army Aeromedical Research Laboratory suggests otherwise.

The study used wrist-mounted monitors to track activity levels of warrant officer candidates and noncommissioned officers undergoing military training. The data from the activity monitors were compared to several tests of mental performance with surprising results. Independent of the Soldiers' academic backgrounds, the type of military training, their recent activity or the exam content, it was the amount of sleep over the previous two nights that was most predictive of their mental performance. The results also indicated that Leaders in the field could easily and unobtrusively collect useful real-time information regarding the readiness of their Soldiers and aircrews by simply using the activity monitors. Such easily obtained data may one day improve military decision-making, as well as potentially save lives and equipment.

For more information, contact Arthur Estrada at (334) 255-6928 or e-mail arthur.estrada@us.army.mil.«

RIDING THE R

RANGE

EARNIE EAKINS
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Motorcycle training programs are always a hot topic this time of year, especially as the Army continues to experience an increase in motorcycle accidents and fatalities. In an attempt to be helpful, many Soldiers often volunteer to become a Motorcycle Safety Foundation (MSF) *RiderCoach*. While the Soldier's dedication is admirable, *RiderCoach* duties are often misunderstood. *RiderCoaches* must teach to remain certified, and that teaching must be done under the auspices of the MSF's Rider Education Recognition Program (RERP). When this is understood, the requirements and the challenges for those wanting to become MSF *RiderCoaches* become more apparent.

There are some issues that must be worked out before a Soldier can become a *RiderCoach*. Soldiers must have their installation's approval to teach because that is where the RERP responsibility resides. Also, legal constraints and the requirement to teach within a RERP precludes *RiderCoaches* from being trained exclusively to support Motorcycle Mentorship Programs. Soldier *RiderCoaches* are becoming increasingly rare because of the Army's need to keep all its Soldiers in the fight. However, Soldier *RiderCoach* qualification remains an option if there is a need at the installation level.

Army installations should answer two fundamental questions before deciding to begin a RERP. First, is a motorcycle training program at your location in the best interest of the Soldier and the Army? Second, are you willing to comply with Department of Defense, Army and MSF requirements in creating your program? If you are, the first step is to identify where you will conduct the training.

FYI

A location with 160 feet by 260 feet of free area will support a standard range. Nonstandard-sized ranges can be used, but they will limit the number of students that can be trained and the type of classes that can be taught at a location. Contact either the U.S. Army Combat Readiness/Safety Center (USACRC) at ArmyRERP@crc.army.mil for details on nonstandard ranges, or have an MSF *RiderCoach* help you review the MSF's Rider Education and Training System Online Resource Guide. That guide is online at https://www.retsorg.org/login.aspx?ReturnUrl=%2fDefault.aspx.

Select a Range Location

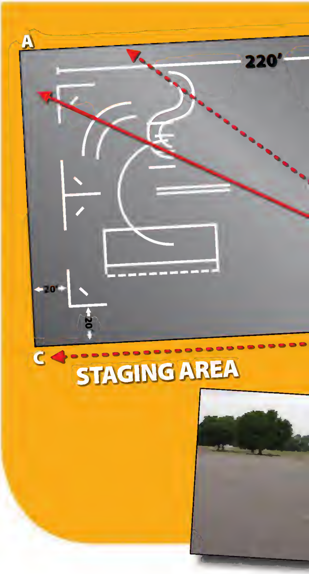
Good sites have a well-maintained, even surface with no raised impediments (curbs, poles, pedestals and drains are considered impediments). The site must be flat, have good drainage and be able to be completely closed to traffic during classes. The best sites will have an obstacle-free paved area 160 feet by 260 feet.

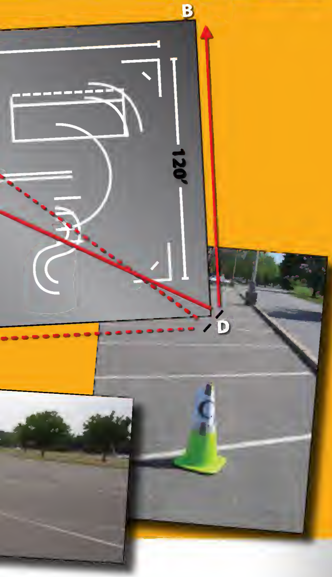
While the most common choice is a parking lot, it is important to remember that it must be free from traffic during motorcycle training. In addition, range choices should reflect the number and type of classes required to support active-duty Army, U.S. Army Reserve (USAR) and Army National Guard (ANG) commands or installations.

There may be ways to support motorcycle training without implementing a RERP at your location. Before making the decision to set up a motorcycle training program, make sure you make the right contacts. Active-duty Army installations should contact their regional safety manager. For USAR organizations, the proper contact is the command safety office, while ARNG organizations should contact their state safety officer and the National Guard Bureau Safety Office. Once the decision is made, the Driving Task Force (DTF) at the U.S. Army Combat Readiness/Safety Center (USACRC) will be more than happy to help get you started.

To help you set up motorcycle safety training at your location, we have information available online at https://crc.army.mil/home/. Click on the DRIVING/POV button and then key in "RERP" in the search box. That will take you to a link that will provide the information you'll need, including an approved RERP application.

Submit your RERP application with your range application if you are beginning a new program. Established RERPs aren't limited to the number of associated training ranges as long as MSF requirements are satisfied. Range information forms are required for each range and photos must be made according to the instructions below.





Guidelines for Range Photographs

We recommend that you refrain from painting your range until it has been formally recognized by the MSF.

- Submit digital photographs enclosed in a PowerPoint presentation only. (No cell phone pictures, please.)
- Before taking photos of the range, place visible markers at the four corners to designate where the range will be located.
- Include the range and run-off areas in each photograph.
- Take two photographs from each corner's perspective: one should give a view of the long side of the range and the other should show the short side. (See the diagram to the left and attached pictures for reference.) You should send at least eight photos to the MSF.
- Label each photograph accordingly, using A, B, C and D to designate the corners of the range (e.g., C. Long Side, C. Short Side).
- E-mail the entire application (forms and photos) to ArmyRERP@crc.army.mil.

Contact the DTF at (334) 255-3034 if you have questions requiring an immediate response. Your careful attention to completing all the steps for submitting your packet will shorten the application process and speed the approval of your RERP/range request. Once the MSF receives the complete application, response time is generally three to four weeks.«

Ghouls Night Out

SGT. KELISA FOLK
Headquarters, 2nd Battalion, 104th Aviation (GSAB)
Fort Indiantown Gap, Pa.

Halloween is a night of excitement and ghoulish charm, but it should be celebrated with caution. Children are four-and-a-half times more likely to be hit by a car on Halloween than on any other night of the year. However, the leading causes of Halloween-related injuries among children are not vehicle-related, but from falls. Many result from long, baggy or loose-fitting costumes, oversized shoes and vision-restricting masks. With a little forethought and creativity, parents and guardians can keep their little ghouls and goblins safe.

Adults should always supervise children under the age of 12 when they head out to haunt the streets in search of treats. Children should only visit well-lit houses and remain outside at all times, while adults stay as close to the home as possible. A flashlight will make trick-or-treaters more visible to motorists, so make sure they carry one. Also, stay on the sidewalks and off streets and lawns.

Halloween is a great opportunity to teach children how and where to safely cross the street. Always use crosswalks or street corners to cross streets, and never cross between parked vehicles. Don't forget to teach your child to always look left, right, left before crossing. As for all the drivers out there, be extra vigilant for the sudden appearance of witches and ninja warriors. It's a good idea to slow down because you never know what may pop out in front of you.

For your child's costume, consider using nontoxic face paint (read the label) instead of a mask. Dress them up in brightly colored clothing and add some reflective tape to make them even more visible to passing motorists. Costumes should only be loose enough so warm clothes can be worn underneath if necessary. Accessories such as swords, knives and magic wands should be made from flexible plastic or cardboard. Also, give your children light-colored goodie bags with reflective tape for added visibility.

To discourage goodie-bag looting before returning home, feed children before taking them trick-or-treating. Make it a rule that all candy will be inspected by you before a single piece is eaten. Once you get home, inspect the candy carefully and wash any fruit thoroughly. Cut fruit into small pieces before serving to children and ration out the candy. When in doubt, throw it out.

For older children, set ground rules and a curfew. Know what routes they'll be taking and who they'll be with. Just in case you get separated, younger children should know their home phone number. It's also a good idea to pin a piece of paper with your child's name, address, contact names and phone numbers to their costume.

Finally, don't forget about Fido. All the unusual activity may frighten pets and cause a normally docile animal to react aggressively, so keep them under control. On the flip side, remember what might be cute and cuddly behavior to you may frighten small children. Also remember to keep treats and decorations out of your pet's reach.

Halloween should be a time of fun and excitement for both children and adults. By following the proper precautions before taking your children out for goodies, you'll have a safer Halloween and create memories that will last forever. «

FYI

As witches, pirates, ghosts and goblins prepare to descend on neighborhoods in search of treats, the American Red Cross offers parents some safety tips to help prepare their children for a safe and enjoyable Halloween.

- Walk, slither and sneak on sidewalks, not in the street.
- Look both ways before crossing the street to check for cars, trucks and low-flying brooms. Cross the street only at corners, and don't hide or cross the street between parked cars.
- Wear light-colored or reflective-type clothing so you are more visible.
- Plan your route and ensure children have adult supervision.
- Carry a flashlight to light the way.
- Keep away from open fires and candles. (Costumes can be extremely flammable.)
- Only visit homes that have the porch light on.
- Accept your treats at the door and never go into a stranger's house.
- Use face paint rather than masks or things that will cover your eyes.
- Be cautious of animals and strangers.
- Have an adult inspect treats before eating. And don't eat candy if the package is already opened. Small, hard pieces of candy are a choking hazard for young children.

For more Halloween and pedestrian safety tips, visit the Web sites of the American Academy of Pediatrics, the Centers for Disease Control and Prevention and the National Safety Council.

TRY IT before you BUY IT

KRISTINA MCCARTHY-MARTIN
Corpus Christi Army Depot
Corpus Christi, Texas

When it comes to chair comfort, one size definitely does not fit all.

"Ergonomically designed" does not always mean it was designed with your application in mind. This concept can apply to a plethora of applications, including use in offices, industrial manufacturing settings and/or anywhere a person works. Wouldn't it be great if you could walk into a place and borrow a chair or a tool and take it back to your workplace to see if you like it before purchasing it? The Corpus Christi Army Depot (CCAD) has developed the Army's first ergonomics center, which allows you to do just that.

The journey toward the development of the CCAD Ergonomics Center began with a benchmarking trip to Boeing's St. Louis Ergonomics Lab. Boeing-St. Louis produces fixed-wing commercial and military aircraft. The facility has implemented a very successful ergonomics program onsite.

In December 2006, a team of engineers and lean analysts from CCAD toured the Boeing facility and learned about its ergonomics program. Following this visit, the idea for CCAD's own ergonomics center began to grow legs. In concept, the CCAD Ergonomics Center would be a vital tool in CCAD's overall safety program, providing education and a resource for problem solving regarding ergonomic issues. The facility

opened its doors Sept. 27, 2007.

The mission of the CCAD Ergonomics Center is to improve work methods and increase efficiency through better tools and training to aid in the reduction of shop floor injuries and illnesses. Increasing productivity is also integral to the center's core mission.

Mission objectives are accomplished via the practice of offering all employees the opportunity to receive hands-on demonstrations of equipment, training aids, alternative tools and personal protective equipment. Many items, including kneeling pads, chairs, stools and ErgoMates™, can also be checked out for a trial period. After evaluating the effectiveness of these items, the staff can assist in their purchase. The staff is also available to assist in the redesign of work areas and office spaces.

One key element to making any ergonomics program a success is a commitment to training and an awareness of the unique issues surrounding ergonomics. Informal training is essential to the success of any ergonomics program and is conducted every time a person enters the CCAD Ergonomics Center.

More formalized training is also conducted by the staff on general ergonomics principles and to empower supervisors to carry out CCAD's ergonomic objectives. Educating the workforce is valuable to identifying potential problems and assisting in the correction of respective workspace ergonomic concerns. This aids in the acceptance of the changes and brings about employee ownership of the redesign. Volunteer temporary staffing is provided by the different directorates on a weekly basis. This practice aids in the operation of the center while providing volunteers with valuable training in all things ergonomics. Once the volunteers complete their week-long duties, they return to their work center with additional knowledge in ergonomics while also serving as a source of information concerning the CCAD Ergonomics Center for their co-workers.

In addition to the ergonomics center, CCAD has also developed an organization-wide stretching program. The program's goal is to alleviate some of the same types of injuries the study of ergonomics focuses on. By increasing the health and wellness of employees via the CCAD Ergonomics Center and stretching program, the depot is raising awareness concerning prevention of injuries in our workforce. The stretching program is currently being implemented throughout the depot on a shop-by-shop basis.

The CCAD Ergonomics Center and the stretching program are resources that will reduce the potential risk of fatigue, error and unsafe acts by creating a healthier, more capable workforce. The multifaceted CCAD Ergonomics Center, via comprehensive education and design, should show a cost savings to the government through the reduction of injuries and the sustainability of a healthy workforce. These savings will allow CCAD to meet its mission in supporting the nation's warfighters by providing them support from a depot workforce that is healthy, fit and ready to go the extra mile.«

DID YOU KNOW?

The Human Factors and Ergonomics Society has designated October as National Ergonomics Month (NEM). The purpose of NEM is to create awareness of human factors and ergonomics through grassroots, community-based activities at colleges and universities, high schools and corporations.

AVIATION

AH-64

CLASS C D Model

Upon completion of flight and while taxiing, ground maintenance personnel informed the aircrew that the No. 2 engine door was open. The aircrew inspected the nacelle door and found damage to three support spars. Maintenance replaced the door and the aircraft returned to flight.

CH-47

CLASS A D Model

While in flight, the aircraft rotor system contacted an unidentified obstacle and descended into a ravine, resulting in Class A damage.

CLASS C

While sitting on a 15-degree slope during slope operations training, the aft right landing gear separated.

OH-58

CLASS A D(R) Model

The crew identified a chip caution message on the multifunction display, followed by a loud noise and an uncommanded 20- to 30-degree left yaw. The pilot was able to autorotate to a secure area.

The aircraft crashed during a Phase 8 maintenance test flight. The aircraft was located a short distance from the airfield and both crewmembers were fatally injured.

UH-60

CLASS A L Model

The crew experienced heavy dust conditions while landing to a confined area and touched down hard. The aircraft came to rest on its side.

WOULD A GO-AROUND OR AN ALTERNATE LANDING ZONE HAVE BEEN A FEASIBLE CHOICE?

UAS

RQ-7B

CLASS C

The UAS experienced engine failure after it reached mission altitude and changed from points NAV to Knobs and executed a -42 degree change in roll attitude. The FTS deployed, but the UAS sustained unrepairable damage.

GROUND

ACV

CLASS A

Three Soldiers drowned when their Mine Resistant Ambush Protected vehicle rolled over into a canal while they were performing a combat patrol mission.

WHAT CONTROLS DOES YOUR UNIT HAVE IN PLACE FOR OPERATING AROUND WATERWAYS, PARTICULARLY DURING LIMITED VISIBILITY?

AMV

CLASS B

An M997 HEMTT was damaged when a fire started near the fuel tanks. The crew was able to exit the vehicle without injury.

Personnel Injury

CLASS A

Several Soldiers were jumping into a river from a railroad bridge using an improvised rappelling rope. One Soldier was swimming for shore when he made a plea for help. His fellow Soldiers tried to assist him but were unable to get to him in time. The Soldier's body was found by divers the following day.

A Soldier died while participating in a land navigation course exercise.

A Soldier suffered a fatal gunshot wound as the result of a negligent discharge. The Soldier was at the residence of a fellow Soldier who was cleaning/loading his personally owned pistol when it fired.

DO LEADERS CONSTANTLY REINFORCE MUZZLE AWARENESS SO SOLDIERS APPLY IT TO BOTH ON- AND OFF-DUTY ACTIVITIES?

A Soldier was conducting a makeup Army Physical Fitness Test when he dropped out of the 2-mile run and collapsed. He was evacuated to a local medical facility, where he was pronounced dead.

ARMY AIRCRAFT LOSSES

Fiscal 2002 to Present

through Aug. 31, 2008

	Hostile/ Non-hostile
AH-64A/D	11/51
U/MH-60A/L	9/32
C/MH-47	8/18
OH-58D	11/30
TOTAL	39/131

ARMY GROUND LOSSES

Fiscal 2008

through Aug. 31, 2008

	Class A Fatalities
AMV	20/17
ACV	7/6
PERSONNEL INJURY includes weapons-handling accidents	43/36
FIRE/ EXPLOSION	3/3
PROPERTY DAMAGE	5/0
TOTAL	78/62

- A Soldier suffered fatal wounds during combat engagement. Friendly fire is suspected.

- A Soldier received substantial burns when a fire ensued during a generator refuel operation.

- A Soldier died when he fell asleep in an unoccupied construction trailer, which later caught fire. The Soldier had been drinking earlier in the evening. The local fire marshal determined the Soldier was smoking when he fell asleep and started the fire.

CLASS C

- A Soldier was conducting crew qualification training on an M2 .50-caliber machine gun when a cartridge exploded and sent a percussion blast back toward the feed tray cover of the weapon. The Soldier suffered a concussion and the weapon was irreparably damaged.

DRIVING

POV

CLASS A

- A Soldier was driving his POV when he crossed the center line, left the road and struck a series of obstacles. The Soldier, who was not wearing a seat belt, suffered fatal injuries.

- A Soldier was driving his POV when he ran off the road while in a curve. The vehicle became airborne and impacted the ground inverted. The Soldier, who was wearing a seat belt, died from his injuries at a hospital several days later.

- A Soldier suffered fatal injuries when his POV was involved in a head-on collision with a vehicle traveling in the wrong lane. The Soldier was not wearing a seat belt.

- A Soldier was driving a rental vehicle when he struck a street sweeper from the rear and then collided with a POV. The Soldier was killed on impact with the street sweeper. Seat belt use was not reported.

- A Soldier was driving his POV when he was broadsided by another vehicle proceeding through an intersection. The Soldier was fatally injured. Seat belt use was not reported.

WHEN ALL ELSE GOES WRONG ON THE HIGHWAY, SEAT BELTS MAY BE A SOLDIER'S ONLY HOPE FOR SURVIVAL.

- A Soldier was driving his POV when he struck a stone wall head-on. The Soldier was pronounced dead at the scene.

POM

CLASS A

- A Soldier was operating his POM with another motorcyclist when he lost control, crossed the center line and struck a fence. The Soldier was pronounced dead at the hospital. The Soldier was wearing his full personal protective equipment (PPE).

POV DRIVING LOSSES

Fiscal 2008

through Aug. 31, 2008 Class A accidents/Soldiers killed

CARS	48/48
SUV/JEEPS	9/9
TRUCKS	12/9
MOTORCYCLES	49/47
OTHER*	6/6

*Includes: vans and ATVs

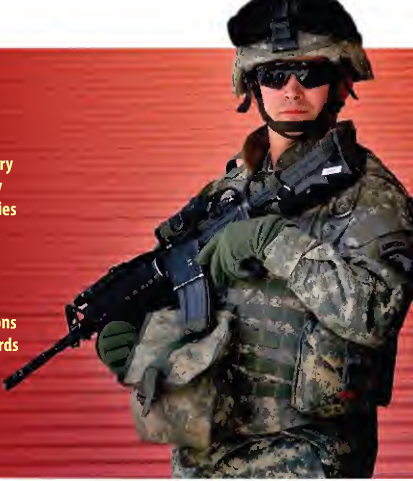
119 TOTAL DEATHS

Fiscal 2007: 99

3 year average: 112

FYI

Did you know the deadline for submitting Secretary of the Army (SA) and Chief of Staff, Army (CSA), Safety Award nomination packets is Nov. 15? Award categories include the Army Headquarters Safety Award, Army Exceptional Organization Safety Award (Division, Brigade, Battalion and Garrison), Army Individual Award of Excellence in Safety (Officer, NCO/Enlisted, Civilian and Contractor) and Army Industrial Operations Safety Award. Information on the SA/CSA Safety Awards can be found in DA Pam 385-10 (Chapter 6), on the U.S. Army Combat Readiness/Safety Center Web site under Awards Program or by contacting the awards administrator at 703-602-3659 or DSN 332-3659.



▪ A Soldier was operating a borrowed POM with another motorcyclist when they collided. The Soldier was thrown from his bike and into a steel barrier, suffering fatal injuries. The Soldier was wearing a helmet but was not licensed.

DO YOU UNDERSTAND LENDING YOUR SPORTBIKE TO AN UNTRAINED FRIEND SETS THEM UP TO BE A "FALLEN COMRADE?"

▪ A Soldier was operating his POM as part of a local group ride when he lost control while negotiating a curve and struck a tree. The Soldier suffered fatal injuries. PPE use was not reported.

▪ A Soldier was operating his POM when he left the road while negotiating a curve. The Soldier was thrown from the bike and suffered fatal injuries. The Soldier was wearing his PPE.

▪ A Soldier was operating a POM on a highway when he struck another vehicle. The Soldier suffered fatal injuries. PPE use was not reported.

▪ A Soldier was operating her POM when she lost control and struck a jersey barrier. The Soldier suffered potentially permanent paralysis from the waist down. The Soldier was wearing her PPE.

▪ A Soldier was operating his POM when he struck another vehicle that was pulling out of a convenience store parking lot. The Soldier was thrown free of the bike and suffered critical injuries. PPE use was not reported.

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, e-mail knowledge@crc.army.mil.

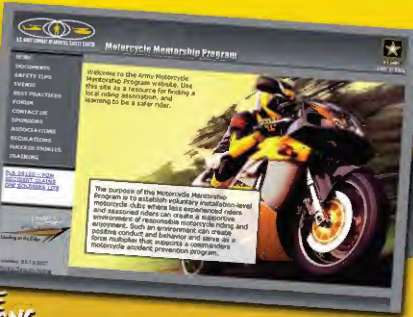
Have fun while helping your battle buddy!

MMP

MOTORCYCLE MENTORSHIP PROGRAM

Mentoring can be fun and set up in various ways. Here are a few examples:

- *Unit-level one-on-one mentorship*
- *Unit-level riding groups*
- *Private organization*
- *Combination unit program and private organization at the installation level*
- *Non-Appropriated Fund Instrumentality*



Welcome to the Army Motorcycle Mentorship Program website. Use this site as a resource for finding a local riding association, and learning to be a safer rider.

The purpose of the Motorcycle Mentorship Program is to establish voluntary installation-level motorcycle clubs where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. Such an environment can create positive conduct and behavior and serve as a force multiplier that supports a commanders motorcycle accident prevention program.

Check out the USACRC MMP Web site for some examples of active mentoring programs:

https://crc.army.mil/mmp/

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